sonal interviews with physicians. **RESULTS:** Prescriptions for 276 patients (66% women), average age 56 years (18–88), were collected from 20 specialists. A total of 249 patients had RA (90%), 15 OA (5%) and 12 both (4%). Fifty-three percent were celecoxib prescriptions, 47% rofecoxib. Eighty-four percent of 117 rofecoxib prescriptions to RA patients were of 25 mg strength. Of these, 95% were dosed 1 × 1 and the average daily number of tablets was 1.05. Ninety-four percent of 132 celecoxib prescriptions to RA patients were of 200 mg strength. Of these, 68% were dosed 1 × 2, and the average daily number of tablets was 1.86. The average weighted cost per day for celecoxib was NOK 16.75, and 11.78 for rofecoxib (pharmacy selling prices). **CONCLUSION:** This study by itself does not allow for an assessment of the drugs' relative cost-effectiveness. However, the prescription pattern observed among specialists for reimbursed cox-2 inhibitors for RA patients indicates a higher daily drug cost for celecoxib than for rofecoxib.

PAR9

PATTERNS OF USE, DOSING AND ECONOMIC IMPACT OF BIOLOGIC AGENTS IN PATIENTS WITH RHEUMATOID ARTHRITIS

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OBJECTIVE: Variability in dosing of biologic agents among patients with rheumatoid arthritis (RA), and associated economic impact, is of great interest to payers and providers. We examined dosing patterns for patients with RA who were newly treated with infliximab or etanercept as well as corresponding 1-year costs of care. **METHODS:** Integrated pharmacy and medical claims data were obtained from 61 U.S. health plans. Patients with a diagnosis of RA who were newly treated with infliximab or etanercept from July 1999 to June 2002 were selected. Among infliximab patients, a maintenance number of vials was determined after the "loading period" (2–3 infusions); those with ≥2 occurrences of an increase in vials or an interval between infusions of <49 days were considered to have had escalated. For etanercept patients, a maintenance dose was measured on the second prescription based on the average daily dose dispensed (in mg); those with ≥2 instances of increased average doses were considered to have escalated their dose. RA-related costs at one year post-initiation were examined; statistical comparisons were made using generalized linear models with a gamma distribution. **RESULTS:** A total of 1548 patients were identified (n = 598 and 950 for infliximab and etanercept respectively). Infliximab recipients were somewhat older (50.5 vs. 46.6 years for etanercept). Nearly 60% of infliximab patients experienced an increase in dose at one year, compared to 18% of patients new to etanercept. Infliximab patients who experienced a dose increase had significantly higher annual RA-related costs than those with no increase ($20,915 vs. $16,713; $p < 0.0001$). Costs among etanercept patients did not substantially differ based on dose escalation ($14,482 vs. $13,866 respectively). **CONCLUSIONS:** Patients new to infliximab had much higher rates of dose escalation relative to etanercept recipients. These dose increases resulted in significantly higher medical costs at one year.

ARTHRITIS—Quality of Life Studies

PAR10

CROSS-CULTURAL ADAPTATION AND VALIDATION OF KOREAN VERSION OF EQ-5D IN PATIENTS WITH RHEUMATIC DISEASES

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OBJECTIVE: This study aims at translating and adapting the EQ-5D cross-culturally into Korean (KEQ-5D), and evaluating its reliability and validity among patients with various rheumatic diseases. **METHODS:** The EQ-5D was translated into Korean by 2 translators and back into English by another 2 translators. Then lay assessment was done according to the EuroQol Group's translation guidelines. Based on the repeated measure data of 65 patients with rheumatoid arthritis (RA), we examined test-retest reliability by intra-class correlation (ICC), and responsiveness by effect size and t-statistic. To evaluate validity, we recruited 100 patients with RA, 103 with osteoarthritis (OA), 111 with systemic lupus erythemtous (SLE), 104 with fibromyalgia syndrome (FMS), and 90 with ankylosing spondylitis (AS). For concurrent validity, we explored correlation between the KEQ-5D and KEQ-VAS (visual analog scale), KSF-36 global, utility measures such as time-trade off (TTO) and standard gamble (SGM), and disease-specific measures, including KHAQ and for RA, KWOMAC for OA, SLEDAI and SLICC for SLE, KFIQ for FMS, and KBASFI for AS. **RESULTS:** Test-retest reliability measured by ICC was 0.635. The effect size was 0.683. Correlations with KEQ-VAS and SF-36 global were significant, however those with TTO and SGM were not. Correlations with disease-specific measures were all significant except for SLEAI and SLICC in SLE, ranging from –0.477 to –0.603. Correlations between physical domains of KEQ-5D and KSF-36P were higher those with KSF-36M, on the contrary, correlation between anxiety/depression and KSF-36M was higher than that with KSF-36P in both overall and disease-specific analysis. **CONCLUSION:** These findings indicated that KEQ-5D had stability and responsiveness, and moreover, criterion and construct validity were satisfactory. We concluded that KEQ-5D could be applied to Korean patients with various rheumatic diseases.

PAR11

IMPLEMENTATION STUDY OF A HEALTH EDUCATION AND EXERCISE PROGRAM FOR OSTEOARTHRITIS OF THE KNEE

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OBJECTIVE: To evaluate process and effects in an implementation study after the RCT, regarding a health education and physical exercise program for older adults with osteoarthritis (OA) of the knee. Implementation studies are recommended to assess the feasibility and effectiveness in real life conditions of health education programs, after being tested in RCTs. **METHODS:** Three types of primary health care providers co-operated in the study, as well as four major health insurers, anticipating the future integration of the program in their insurance policy. Local branches of the providers (n = 18) supported with a program manual and implementation guidelines, delivered the program to 157 subjects. Inclusion criteria were older adults of >55 years of age, with diagnosed OA of knee. Implementation activities were monitored with registration forms, questionnaires and interviews with the providers. Program-participants completed questionnaires before and immediately after participation. This design was thought to be adequate, given the objective to identify the effects of the program in real life conditions after the RCT. Outcome parameters were pain, mobility, self-efficacy and OA-knowledge and health care utilisation. **RESULTS:** Positive effects occurred for pain ($p = 0.06$), self-efficacy ($p = 0.06$), OA-knowledge ($p = 0.00$), use of medication ($p = 0.00$), treatment by phsyiotherapist ($p = 0.01$) and consultation of the general practitioner ($p = 0.01$). Effect sizes reported in the former RCT and the current study, were comparable. All three kinds of providers contributed to an equal extent to the outcomes. The implementation strategy contributed to the fidelity in program delivery. **CONCLUSIONS:** This implementation study emphasised that planned co-operation between researchers, practitioners and policy-makers can contribute to the transfer of research results. In doing so, a widely recognised gap between research and practice can be bridged.

PAR12

ADAPTATION OF THE RAQOL FOR ESTONIA

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OBJECTIVE: To adapt and validate an Estonian version of the RAQoL. The measure, developed in the UK, assesses rheumatoid arthritis (RA) specific quality of life (QoL). The aim of the cultural and linguistic adaptation of the RAQoL is to produce a version with equally good psychometric properties to existing language versions. **METHODS:** Translation consisted of two stages. The first involved six Estonians with non-medical backgrounds and good English who worked together to agree a first translation of the questionnaire. The group was attended by one of the authors of the RAQoL who advised on the precise meaning of items. The appropriateness of wording and clarity of content of the translation were then evaluated by six healthy people of average educational level. In the next stage of adaptation 15 RA patients were interviewed to determine face and content validity. **RESULTS:** No major problems were found in translating the questionnaire into Estonian. Patient interviews indicated that the content of the RAQoL was highly appropriate for Estonian patients, despite differences in health service provision and culture from the UK. **CONCLUSION:** This is the first occasion on which a disease-specific QoL questionnaire has been adapted into Estonian and the results are very encouraging. The final stage of the adaptation will be a formal survey of reproducibility and construct validity of the adapted measure. The novel aspect of the survey is that data will be collected by means of patient interview and will include a clinical assessment of functional status and disease activity at the time of interview. It is intended that the RAQoL will be used to evaluate interventions and to be included with the HAQ in a register of patients with rheumatoid arthritis.

PAR13

UTILITY VALUATION FROM THE PATIENT PERSPECTIVE OF TREATMENT OUTCOMES IN OSTEOARTHRITIS

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OBJECTIVES: The aim of this study was to use patients currently being treated for osteoarthritis to determine the utility values for different health outcomes associated with the use of non-steroidal anti-inflammatory drugs (NSAIDs) or paracetamol. **METHODS:** A total of 85 patients currently being treated with NSAIDs and/or paracetamol were recruited to value five health state scenarios using the Assessment of Quality of Life (AQOL) multi-attribute utility (MAU) instrument. The five health states described various health states of osteoarthritis with varying possible NSAID-related side effects. The health states were developed using published clinical trial data and expert opinion. The participant, using the AQOL MAU, valued each health state. Mean utility values were derived for each health state using the AQOL scoring algorithm. **RESULTS:** Osteoarthritis without gastrointestinal (GI) side effects produced the highest mean utility score (0.69) while the complicated perforation, ulcer or bleed (PUB) health state produced the lowest utility (0.20). Higher utility values were seen in the uncomplicated PUB (0.38) and minor NSAID-type GI complications (0.48) health states. The health state describing osteoarthritis managed with paracetamol produced a lower utility than the health state describing osteoarthritis managed with traditional NSAIDs (0.36 vs 0.69)—a result consistent with the relative efficacy of NSAIDs and paracetamol in the treatment of osteoarthritis. **CONCLUSION:** The results suggest that there is potential to improve the quality of life of osteoarthritis